

THEORY: When two solutions containing ions are mixed, the ions are free to move and may form compounds that are insoluble and thus precipitate out of the solution as a solid.

PURPOSE:**EQUIPMENT:**

Semi-micro test tubes, 0.10 M solutions of Sodium Carbonate (Na_2CO_3), Lead Nitrate ($\text{Pb}(\text{NO}_3)_2$), Potassium Iodide (KI), Silver Nitrate (AgNO_3), Potassium Chromate (K_2CrO_4), Copper Sulfate (CuSO_4), and Barium Chloride (BaCl_2).

PROCEDURE:

1. Mix the pairs of compounds by adding a few drops of each to a clean semi-micro test tube.
2. Fill in the table below.

OBSERVATIONS:

Solutions Mixed	Ions Present	Observations	Precipitate Formed	Spectator Ions Present
Sodium Carbonate and Lead Nitrate				
Lead Nitrate and Potassium Iodide				
Potassium Iodide and Silver Nitrate				
Silver Nitrate and Potassium Chromate				
Copper Sulfate and Barium Chloride				
Lead Nitrate and Potassium Chromate				
Lead Nitrate and Barium Chloride				
Copper Sulfate and Sodium Carbonate				
Potassium Iodide and Sodium Carbonate				

RESULTS:

1. Write Ionic Equations for each reaction that produced a precipitate.

2. Suggest what compounds could be mixed together to produce a precipitate of Calcium Carbonate.

CONCLUSION: